9th Class 2018

Math (Science)	Group-I	Paper
Time: 20 Minutes	(Objective Type)	Max Marks: 15

Note: Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle in front of that question with Marker or Pen ink in the answer-book. Cutting or filling two or more circles will result in zero mark in that question.

1-1- H.C.F of $a^3 + b^3$ and $a^2 - ab + b^2$ is ----:

(a) $a + b$
(b) $a^2 - ab + b^2$ √
(c) $a - b$
(d) $a^2 + b^2$

2- If (x, 0) = (0, y), then (x, y) is:

(a) (0, 1)
(b) (1, 0)
(c) (0, 0) √
(d) (1, 1)

3- Medians of a triangle are:

(a) Parallel
(b) Equal
(c) Concurrent √
(d) Non-concurrent

4- The medians of a triangle cut each other in the ratio ---- :

(a) 4 : 1
(b) 3 : 1
(c) 2 : 1 √
(d) 1 : 1

5- The bisectors of the angles of a triangle are ----

(a) Collinear
(b) Non-collinear
(c) Non-concurrent
(d) Concurrent √

6- If $X + \begin{bmatrix} -1 & -2 \\ 0 & -1 \end{bmatrix} = \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$, **then X is equal to:**

(a) $\begin{bmatrix} 2 & 2 \\ 2 & 0 \end{bmatrix}$
(b) $\begin{bmatrix} 0 & 2 \\ 2 & 2 \end{bmatrix}$
(c) $\begin{bmatrix} 2 & 0 \\ 0 & 2 \end{bmatrix}$
(d) $\begin{bmatrix} 2 & 2 \\ 0 & 2 \end{bmatrix}$ √

7- The value of $\log\left(\frac{p}{q}\right)$ is ----- :

(a) $\log p - \log q$ √ (b) $\frac{\log p}{\log q}$

(c) $\log p + \log q$ (d) $\log q - \log p$

8- Factors of $3x^2 - x - 2$ are ---- :

(a) $(x + 1), (3x - 2)$ (b) $(x + 1), (3x + 2)$

(c) $(x - 1), (3x - 2)$ (d) $(x - 1), (3x + 2)$ √

9- Mid-point of the points (0, 0) and (2, 2) is:

(a) (1, 1) √ (b) (1, 0)

(c) (0, 1) (d) (–1, –1)

10- Symbol used for congruent is ----:

(a) = (b) ≅ √

(c) ~ (d) ↔

11- A ray has ----- end points:

(a) 2 (b) 1 √

(c) 3 (d) 4

12- Write $4^{2/3}$ with radical sign:

(a) $\sqrt[3]{4^2}$ √ (b) $\sqrt{4^3}$

(c) $\sqrt[2]{4^3}$ (d) $\sqrt{4^6}$

13- Triangles on equal bases and of equal altitudes are ---- in area:

(a) Same (b) Equal √

(c) Unequal (d) Similar

14- $\frac{1}{a-b} - \frac{1}{a+b}$ is equal to:

(a) $\frac{2a}{a^2 - b^2}$ (b) $\frac{2b}{a^2 - b^2}$ √

(c) $\frac{-2a}{a^2 - b^2}$ (d) $\frac{-2b}{a^2 - b^2}$

15- If x is no larger than 10, then ----:

(a) $x \geq 8$ (b) $x \leq 10$

(c) $x < 10$ √ (d) $x > 10$